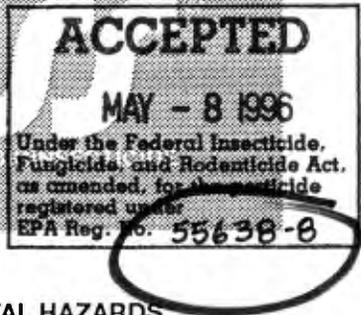


# CUTLASS



Cutlass® wettable powder bioinsecticide is a biological insecticide for the control of lepidopteran pests.

**Active Ingredient:**

*Bacillus thuringiensis* subspecies *kurstaki* strain EG2371  
Lepidopteran active toxin . . . . . 10.00%

**Inert Ingredients** . . . . . 90.00%

TOTAL . . . . . 100.00%

1.6 oz. active ingredient per pound

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

### STATEMENT OF PRACTICAL TREATMENT

**If Swallowed:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**If Inhaled:** Remove to fresh air. Get medical attention.

**If In Eyes:** Flush with plenty of water. Call a physician if irritation persists.

**If On Skin:** Wash with soap and water.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled. Avoid breathing dust or spray mist. Harmful if swallowed. Causes eye irritation. Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

#### Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations

User should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**Storage:** Store in a cool, dry place inaccessible to children.

**Pesticide Disposal:** Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this section only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, water proof gloves, shoes plus socks.



Ecogen Inc.  
2005 Cabot Blvd. West, P.O. Box 3023  
Langhorne, PA 19047-3023  
215/757-1590 or 800/220-2135

EPA REG. No. 55638-8  
EPA Est. Nos. 769-GA-1 [03], 42761-MS-1 [04], 37429-GA-1 [05],  
37429-GA-2 [06], 5905-GA-01 [10]  
(Subscript refers to last 2 digits of lot number on container.)  
Net Contents: 5 U.S. Pound Bag

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Do not enter treated areas without protective clothing until sprays have dried.**

**Preharvest Interval:** CUTLASS may be applied to the crops listed in the APPLICATION RATE TABLE at any time, up to and on the day of harvest.

**Mode of Action:** After consuming a lethal dose of CUTLASS, larvae will cease to feed, but may remain alive on foliage for several days before disappearing. Immediately after ingestion of CUTLASS, larvae begin to move slowly, become discolored, shrivel and blacken prior to death.

## MIXING INSTRUCTIONS

CUTLASS may be applied with conventional ground, aerial or hand held application equipment with quantities of water sufficient to provide thorough coverage of infested plants. Do not apply this product through any type of irrigation system. To obtain a suitable mixture with water, add enough water to allow maximum agitation. With agitator running, slowly add in the CUTLASS. Continue agitation. Add remainder of water and other spray materials and agitate until mixed. Maintain suspension while loading and spraying. Do not mix more CUTLASS than can be used in a 12-hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the **APPLICATION RATE TABLE** and these guidelines:

## APPLICATION GUIDELINES

Pest category	Pest Pressure (number of larvae/plant)			
	Low <sup>1</sup> (<0.3)	Moderate <sup>2</sup> (0.3-1.0)	High <sup>3</sup> (1.0-5.0)	Extreme <sup>4</sup> (>5.0)
	Pounds of Product to be Applied per Acre			
Category 1	1.5	2.0	2.5	2.5
Category 2	1.0	1.5	2.0	2.5
Category 3	1.0	1.0	1.5	2.0

<sup>1</sup> Recommended spray interval of 7-10 days.

<sup>2</sup> Recommended spray interval of 6-8 days.

<sup>3</sup> Recommended spray interval of 4-6 days.

<sup>4</sup> Recommended spray interval of 3-5 days.

**Category 1 Pests include:** artichoke plume moth, navel orangeworm, oriental fruit moth, tomato fruitworm (also called bollworm and corn earworm), tufted apple budmoth.

**Category 2 Pests include:** Amorbia, armyworms, cabbage looper, citrus cutworm, diamondback moth, leafrollers, melonworm, peach twig borer, pickleworm, soybean looper, tomato pinworm, tobacco budworm and tortrix moth.

**Category 3 Pests include:** all caterpillar pests shown in the APPLICATION RATE TABLE, except those shown in Categories 1 and 2.

For crops such as Fruits, Nuts and Vines, applications are often timed to stage of development and recommendations from local Extension personnel should always be followed.

## APPLICATION INSTRUCTIONS

CUTLASS is a selective insecticide for use against the lepidopteran larvae listed in the APPLICATION RATE TABLE. Larvae must consume deposits of CUTLASS to be affected. Always follow these directions:

- Make applications when larvae are still small (early instars) and actively feeding on foliage or other plant parts.
- Make applications before noticeable foliar damage occurs.
- Thorough spray coverage is essential for good insect control. For ground applications, directed drop nozzles should be used for certain vegetable crops.
- When insect infestations are heavy, use the higher label rates, shorten the spray interval, and/or use larger total spray volume to improve spray coverage (see APPLICATION GUIDELINES for selection of rates and intervals).
- Applications should be repeated at an interval sufficient to maintain control, depending upon plant growth, insect pressure and weather conditions after spraying. (Refer to APPLICATION GUIDELINES)
- For ground applications, use a minimum spray volume of 5 gallons per acre. For aerial applications, use a minimum spray volume of 2 gallons per acre.
- Local conditions may affect the use of CUTLASS. Consult your State Agricultural Extension Specialist for specific recommendations related to local crop protection problems.
- Spray water/spray tank solutions should not exceed pH 8.0. If necessary, buffer water to near neutral pH.

## HAND HELD EQUIPMENT

When using hand held equipment, mix 3 teaspoons per gallon of water or 1 1/2 pounds per 100 gallons of spray solution. Spray to wet, but not to runoff.

## TANK MIX

Combinations of CUTLASS with commonly used insecticides, fungicides, or other spray tank adjuvants are generally not deleterious to performance. It is advisable to test physical compatibility by mixing all components in a small container in proportionate quantities prior to mixing in spray tank. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rate should be exceeded. Application must be made in accordance with the more restrictive of label limitations and precautions.

- For improved durability of spray deposits, an approved spreader/sticker is strongly recommended for hard-to-wet crops such as cole crops.
- Feeding stimulants may improve performance. Consider using feeding stimulants in situations of heavy worm pressure, inadequate coverage, or dense crop canopy.

# APPLICATION RATE TABLE

## I. VEGETABLES & COLE CROPS (Fresh and Processed)

Crop such as:		Insect Pest
Artichokes	Napa	Armyworms
Arugala	Okra	Artichoke plume moth
Asparagus	Onions	Beet armyworm
Beans	Parsley	Cabbage budworm
Beets	Parsnips	Cabbage looper
Bok Choy	Peas	Cabbage webworm
Broccoli	Peppers	Celery leaf-tier
Brussels sprouts	Potatoes	Corn earworm
Cabbage	Pumpkins	Cross-striped cabbageworm
Cardoni	Radishes	Diamondback moth
Carrots	Rutabaga	European corn borer
Cauliflower	Salsify	Fall armyworm
Celeriac	Shallots	Green cloverworm
Celery	Soybean foliage	Imported cabbageworm
Chick peas	Spinach	Melonworm
Chicory	Squash	Omnivorous leafroller
Chinese cabbage	Sugar beets	Pickleworm
Collards	Sweet potatoes	Rindworm complex
Cucumber	Swiss chard	Saltmarsh caterpillar
Cucurbits	Tomatoes	Soybean looper
Dry bulb onions	Turnips	Tobacco budworm
Eggplants	Watercress	Tomato fruitworm
Escarole		Tomato hornworm
Endive		Tomato pinworm
Garlic		Velvetbean caterpillar
Green onions		Yellowstriped armyworm
Greens (Beets, China, Dandelion, Mustard, Turnip)		
Horseradish		
Kale		
Kohlrabi		
Leeks		
Lentils		
Lettuce (Head, Leaf, Romaine)		
Malanga		
Melons (Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc.)		

Rate/Acre: 1.0 - 2.5 pounds

## II. HERBS & SPICES

Crop such as:	Insect Pest
Basil	Armyworms
Chives	Diamondback moth
Cilantro	European corn borer
Dill	Green cloverworm
Oregano	Imported cabbageworm
Peppermint	Loopers
Thyme	Saltmarsh caterpillar

Rate/Acre: 1.0 - 2.5 pounds

## III. PASTURE & HAY CROPS

Crop such as:	Insect Pest
Alfalfa (hay & seed)	Alfalfa caterpillar
Pasture (grasses & hay)	Armyworms*
Silage	Loopers*
	European skipper
	Webworm

Rate/Acre: 1.0 - 2.5 pounds

\*Product should be applied when early instar larvae first appear. If infestation persists, make a second application 7-10 days later. Combination of CUTLASS with a contact insecticide is recommended for control of 4th and 5th instar larvae.

## IV. FRUIT, NUT & VINE CROPS

Crop such as:	Insect Pest	Rate/Acre
<b>Pome and Stone Fruit Trees:</b> Apples Apricots Cherries Nectarines Peaches Pears Plums Prunes Quince	Cankerworm (Spring & Fall)	1.0 - 2.5 pounds
	Eastern tent caterpillar	
	Fall webworm	
	Fruittree leafroller	
	Gypsy moth	
	Navel orangeworm	
	Omnivorous leafroller	
	Oriental fruit moth	
	Peach twig borer	
	Redbanded leafroller	
	Redhumped caterpillar	
	Tortrix moth (Orange and Garden)	
	Tufted apple budmoth	
	Variiegated leafroller	
	Walnut caterpillar	
<b>Nut Trees:</b> Almonds Chestnuts Filberts Pecans Walnuts	Citrus cutworm	1.0 - 2.5 pounds
	Filbert leafroller	
	Filbert webworm	
	Navel orangeworm	
	Oblique banded leafroller	
Citrus	Amorbia	1.0 - 2.5 pounds
	Citrus cutworm	
	Fruittree leafroller	
<b>Small Fruit and Berries:</b> Blackberries Blueberries Cranberries Currants Raspberries Strawberries	Acherna sphinx moth	1.0 - 2.5 pounds
	Armyworms	
	Blueberry leafroller	
	Fruittree leafroller	
	Grape berry moth	
	Gypsy moth	
	Loopers	
	Oblique banded leafroller	
	Tobacco budworm	
	Grapes	
Cherry fruitworm		
Grape leafroller		
Grapeleaf skeletonizer		
Green fruitworm		
Omnivorous leafroller		
Orange tortrix		
Saltmarsh caterpillar		
<b>Tropical and Other Fruit:</b> Avocados	Amorbia	1.0 - 2.5 pounds
	Loopers	
	Orange tortrix	
	Omnivorous leafroller	
Bananas	Banana skipper	1.0 - 2.0 pounds
Kiwi	Omnivorous leafroller	1.5 - 2.5 pounds
Persimmons Pomegranate	Citrus cutworm	1.0 - 2.5 pounds
	Fall webworm	
	Filbert webworm	
	Omnivorous leafroller	
	Redhumped caterpillar	
Pineapple	Gummosis-Bactera-chedra commosae	1.0 - 2.0 pounds
	Thecla-Theclia basiliides	
Tropical fruits	Hornworms	1.0 - 2.5 pounds
	Leafrollers	
	Loopers	
	Omnivorous leafroller	

**V. FIELD CROPS**

Crop such as:	Insect Pest	Rate/Acre
Canola/Rape Seed Evening Primrose	Armyworms Diamondback moth Imported cabbageworm Loopers	1.0 - 2.5 pounds
Corn (Field, Sweet, Popcorn)	Armyworms European corn borer Southwestern corn borer	1.0 - 2.0 pounds
Cotton*	Beet armyworm Bollworm Cabbage looper Cotton leaf perforator Saltmarsh caterpillar Tobacco budworm	1.0 - 2.5 pounds
Hops	Armyworms Loopers Oblique banded leafroller Omnivorous leaf-tier Spotted cutworm	1.0 - 2.5 pounds
Jajoba	Looper ( <i>Anacamp- todes spp.</i> )	1.0 - 2.5 pounds
Peanuts	Fall armyworm Green cloverworm Loopers Podworms Velvetbean caterpillar	1.0 - 2.5 pounds
Rice	Armyworms Green cloverworm Loopers Saltmarsh caterpillar Velvetbean caterpillar	1.0 - 2.5 pounds
Safflower	Armyworms Loopers Saltmarsh caterpillar	1.0 - 2.5 pounds
Small Grains (Barley, Oats, Rye, Wheat, etc.)	Armyworms Loopers	1.0 - 2.5 pounds
Sorghum	European corn borer Fall armyworm Saltmarsh caterpillar Velvetbean caterpillar	1.0 - 2.5 pounds
Soybeans	Green cloverworm Soybean looper Velvetbean caterpillar	1.0 - 2.5 pounds
Sunflowers	Banded sunflower moth Beet armyworm Headmoth Loopers Sunflower moth	1.0 - 2.5 pounds
Tobacco	Tobacco budworm Tobacco hornworm Loopers	1.0 - 2.5 pounds

\*Use CUTLASS to control light to moderate populations of newly hatched worms in integrated pest management programs. Repeat treatments at four to five day intervals or as long as necessary until results are acceptable. For control of cotton bollworm and tobacco budworm, ovicides or synthetic pyrethroids can be combined with CUTLASS in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

**VI. COMMERCIAL FLOWERS & ORNAMENTAL PLANTS**

Crop such as:	Insect Pest
Bedding plants Flowers Greenhouse Ornamentals Vegetables	Armyworms Azalea moth Diamondback moth Ello moth (hornworm) lo moth Loopers Oleander moth Omnivorous leafroller Omnivorous looper Tobacco budworm

Rate/Acre: 1.0 - 2.5 pounds

**VII. FOREST, SHADE TREE & NURSERY STOCK**

Crop such as:	Insect Pest
Forest Shade trees Nursery trees	Bagworm Blackheaded budworm Browntail moth California oakworm Douglas fir tussock moth Elm spanworm Fall webworm Fruitree leafroller Greenstriped mapleworm Gypsy moth Jack pine budworm Mimosa webworm Pine butterfly Redhumped caterpillar Saddleback caterpillar Saddle prominent caterpillar Spring and Fall cankerworm Spruce budworm Tent caterpillar Tortrix Western tussock moth

Rate/Acre: 1.0 - 2.5 pounds

**VIII. TURF**

Crop such as:	Insect Pest
Turf	Armyworms  Sod webworm Tropical sod webworm

Rate/Acre: 1.0 - 2.5 pounds

**WARRANTY AND CONDITIONS OF SALE**

Ecogen warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used in accordance with the directions on this label under normal conditions of use.

ECOGEN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

If this product is defective, Buyer's exclusive remedy shall be the replacement of the product, or if replacement is impracticable, refund of the purchase price. In no case will Ecogen be liable for incidental, consequential, or special damages resulting from the handling, storage or use of this product.

Outlass is a trademark of Ecogen Inc.  
U.S. Patent No. 5,080,897  
Vers. 10/95 · Copyright ©1995 Ecogen Inc.